

### REMARKS

Claims 1-14 are pending in the application. Claims 1 and 11-14 are rejected. Claims 2-10 are withdrawn from consideration. Claims 1 and 11 are amended and new claims 15-17 are added. Claim 11 has been placed into independent form.

The amendments of claim 1 and 11, and new claims 15-17, are clearly supported by the description of paragraph [0083] of the original specification.

#### *Election/Restriction of Invention*

Applicants' have elected Group II, claims 11-14, without traverse. The Examiner acknowledges this election.

The Examiner advises that claim 1 has been included in this action as a linking claim for the elected invention of claims 11-14.

Thus, claims 2-13 have been withdrawn from consideration. The claims under consideration are 1 and 11-14.

#### *Claim Rejections – 35 U.S.C. § 112*

**Claims 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.** This rejection is traversed for at least the following reasons.

##### **Claim 11**

The Examiner asserts that the term "low-temperature ion exchange" in claim 11 is a relative term which renders the claim indefinite. Applicants have amended the claim to remove this basis for rejection.

##### **Claim 14**

The Examiner considers the term "main surface" in claim 14 to be confusing. The Examiner explains that the term 'main surface' is defined in claim 11 as the surface a stress layer is formed on. However, the Examiner notes that claim 14, dependent on claim 11, defines the same "main surface" as the surface the magnetic layer is placed on. The Examiner finds that this rendering the use of "main surface" in claim 14 with the terms' meaning unclear.

Claim 14 has been amended in order to remove this basis for rejection.

*Claim Rejection – 35 U.S.C. § 103*

**Claims 1 and 11-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Onoda et al (JA 2002-220259) with either Miyamoto et al (JA 2001-167427) or Miyamoto et al (US 200210110706).** This rejection is traversed for at least the following reasons.

**Claims 1 and 11**

According to the present invention recited in amended claims 1 and 11, the melted mixture of at least three alkali metal nitrates contains 0.001% to 0.3% by volume of a nitrate of alkali metal having a smallest ion radius among the alkali metal nitrates. This is a key feature of the present invention.

As described at paragraph [0083] and Tables 1-3 of the original specification, if the lithium ion content in the chemical strengthening molten salt is excessively high, ion exchange is inhibited. Consequently, it may become difficult to obtain desired tensile stress and compressive stress.

The cited references fail to disclose this feature of the present invention. Accordingly, the present invention is clearly patentable over the cited references.

**Onoda et al**

The Examiner cites Onoda et al for the teaching of a magnetic disk glass substrate, for use in a hard disk drive, having a thickness <0.5 mm, where the substrate has opposing surface compressive stress layers on main (outer) surfaces. The Examiner asserts that a resultant tension inherently forms a transitional stressed layer between the main surface and the strengthen compressed layer upper layer. The Examiner considers the claimed stress, impact resistance and waviness to be the result of a routine optimization by one of ordinary skill. The Examiner admits that Onoda et al does not teach a surface that is mirror-finished nor does it specify waviness.

**Miyamoto et al**

The Examiner asserts that these parameters are conventions in the manufacture of magnetic recording disk substrates as evident from (1) Miyamoto et al JA, including tolerances for stress level depth [0031], waviness as a variation in the disk diameter [0045] and mirror polishing [0046]. and (2) Miyamoto et al (US), including tolerances for stress level depth [0268] waviness as a variation in the disk diameter [0078], [0098], [0113], [0264], [0271] and mirror-finishing the disk (Miyamoto et al US mirror finish [0099], [0172-174]).

Nonetheless, as now claimed, the invention is not found in any of Onoda et al, Miyamoto et al (JA) or Miyamoto et al (US).

***Rejoinder of Claims***

Since the Examiner already has joined independent claim 1 to the elected claims and since Applicants have demonstrated that amended independent claim 1 is patentable over the prior art, the remaining dependent claims should be allowable

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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**23373**

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